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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,038	03/02/2004	Nobuhito Suehira	249566US2CONT	9746
22850	7590	06/13/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			THOMAS, LUCY M	
1940 DUKE STREET			ART UNIT	
ALEXANDRIA, VA 22314			PAPER NUMBER	
			2836	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/790,038	Applicant(s) SUEHIRA ET AL.	
	Examiner Lucy Thomas	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5,6,9 and 11-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,5,6,9 and 11-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The use of the trademark POGO has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 9, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Laid Open Japanese Patent (LOJP) No. 9098/1994. Regarding Claim 1, LOJP discloses a charge eliminating mechanism for a stage for a work-to-be-processed (see Figures 6-8), comprising: a grounded wiring line 12a having a first end and a second end, the second end being grounded (first end electrically connected 3 and grounded and second end connected to 12); and a mechanical switching mechanism 12 arranged between the stage and the first end of the wiring line, wherein the mechanical switching mechanism of the charge eliminating mechanism comprises: a contact terminal 12c including a contact terminal main body 12b, a third end, and a fourth end, the fourth end being electrically connected to the first end of the wiring line (see 12 connected to 12a),

and a contact state between the third end and the stage being physically turning on/off, and when the third end is in contact with the stage, the stage is grounded through the third end of the contact terminal, the contact terminal main body, the fourth end, the first end of the wiring line, a resistor 12c, and the second end of the wiring line, and wherein the contact terminal includes an elastic contact mechanism to cause the third end of the contact terminal and the stage to come into elastic contact with each other.

Claim 9 recites a testing apparatus with the limitations of Claim 3. Therefore, please see the rejection for Claim 3 above.

Regarding Claim 16, LOJP discloses that the third end is configured to contact an outer perimeter side surface of the stage in order to ground the stage (when contact is made between 12c and 6c, contact is made to the outer perimeter side surface of the stage 2 where the electrostatic charge is accumulated).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-6, 11-12, 15, 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laid Open Japanese Patent (LOJP) No. 9098/1994 in view of del Puerto et al. (US 6, 778, 258). Regarding Claim 5, LOJP disclose that the stage 2 is part of a semiconductor fabrication machine and would necessarily be rotatable in forward and reverse directions, and the elastic contact mechanism provided is a charge

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eliminating rod with spring properties. LOJP does not disclose a charge eliminating plate with spring properties formed on the side surface of the stage.

Del Puerto discloses a stage 230 for wafer processing and contact terminals which include an elastic contact mechanism to cause the contact terminal and the stage to come into elastic contact with each other (see contact block 225, contacts 226, 227 and contact pads 228, 229 in Figure 2B, Column 6, lines 51-64), wherein the stage 230 is rotatable in forward and reverse directions (see Figure 2B), and the elastic contact mechanism provided on the stage is a plate (provided with 228, 229) with spring properties formed on a side surface of the stage (Column 6, lines 58-60). It would have been obvious to those skilled in art at the time the invention was made to modify LOJP's charge eliminating mechanism and to provide a charge eliminating plate on the side surface of the stage as taught by Puerto, to guarantee good electrical contact between contact the terminal and the stage by providing a specific location on the stage for the contact terminal to make contact.

Regarding Claim 6, LOJP does not specifically disclose a POGO pin. Del Puerto discloses that the elastic contact mechanism provided on the contact is a POGO pin (Column 6, lines 54-66). It would have been obvious to those skilled in art at the time the invention was made to modify LOJP's charge eliminating mechanism and to provide POGO pin as taught by Puerto, because POGO pins are commercially available elastic contact mechanism and guarantee good electrical connection for testing and processing of wafers in semiconductor industries.

Claims 11-12 basically recites the elements of Claims 5-6, except that the testing apparatus of Claim 9 is recited. Therefore, please see the rejections for Claims 5-6 recited above.

Regarding Claim 15, LOJP discloses that the elastic contact mechanism is configured to cause the third end of the contact terminal and the stage to come into elastic contact with each other and the stage 2 is wafer processing stage which would be movable in X and Y directions, or rotatable about an axis. LOJP does not specifically disclose the stage to come into elastic contact with each other when the stage is moved in X and Y directions, or when the stage is rotated about an axis thereof.

Del Puerto discloses a stage 230 for wafer processing and contact terminals which include an elastic contact mechanism to cause the contact terminal and the stage to come into elastic contact with each other (see contact block 225, contacts 226, 227 and contact pads 228, 229 in Figure 2B, Column 6, lines 51-64), wherein the stage 230 is rotatable around an axis, and in X and Y directions (see Figure 2B, Column 7, lines 8-17), and the elastic contact mechanism provided on the stage is a plate (provided with 228, 229) with spring properties formed on a side surface of the stage (Column 6, lines 58-60).

Del Puerto differs from the claim as the stage and the terminal come in contact when the stage is moved in z-direction, not when moving X, Y, and rotation direction as recited in the claim (Del Puerto's contact pads are at the bottom of the chuck and the stage is moved in the z-direction, for the contact, but performs the same function). It would have been obvious to those skilled in art at the time the invention was made to

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modify the combination of LOJP's and del Puerto and to provide a charge eliminating plate and the contact terminal arranged such that the contact is made when the stage is moved in X, Y, or rotational directions, instead of z-direction, and furthermore, it has been held that there would be no invention in shifting location of parts when the operation of the device would not be modified. In re Japkse, 86 USPQ 70 (CCPA 1950).

Claim 17 basically recites the limitations of Claim 5, additionally limiting the contact on an outer perimeter of the side surface, and LOJP discloses the contact being made on an outer perimeter of the side surface (when contact is made between 12c and 6c, contact is made to the outer perimeter side surface of the stage 2 where the electrostatic charge is accumulated).

Claim 18 basically recites the combined limitations of Claim 6 and 15. Therefore please see the rejections for Claim 6 and 15 above. Claims 19-22 basically recites the elements of Claims 15-18, except that the testing apparatus of Claim 9 is recited. Therefore, please see the rejections for Claim 15-18 recited above.

6. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laid Open Japanese Patent (LOJP) No. 9098/1994 in view of Poli et al. (US 5, 280, 979). Regarding Claims 13, LOJP discloses that the work-to-be processed is work to be tested. LOJP does not disclose a resistor in the wiring line between the first and second end.

Poli discloses a charge eliminating mechanism (Figure 1), for a work-to-be processed, wherein a wiring line includes a resistor 4 between the first and second ends

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(see resistor in Figure 2A). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the charge eliminating mechanism and provide a resistor in the wiring line as taught by Poli, because resistor protects the work-to-be processed from damage due to rapid discharge of electrostatic charge (see Poli, Abstract, lines 6-10).

Claim 14 recites the resistor of Claim 13. Therefore please see the part rejection for the resistor of Claim 13 recited above.

Response to Arguments

7. Applicant's arguments filed 2/07/2007 have been fully considered, but they are moot in view of new grounds of rejection.

Conclusion

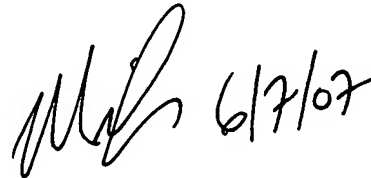
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucy Thomas whose telephone number is 571-272-6002. The examiner can normally be reached on Monday - Friday 8:00 AM - 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LT
June 06, 2007



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